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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

REID, CHERYL M

ART UNIT PAPER NUMBER

2142

DATE MAILED: 11/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/917,237	BYRNE ET AL.	
	Examiner	Art Unit	
	Cheryl M. Reid	2142	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
 - If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
 - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
 - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 July 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. ____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

Specification

1. Claims 1-12 have been examined.
2. Applicant is advised that there is a minor-informality with spelling. Throughout the document , applicant has "synchronise" instead of "synchronize". Proper correction is required.

Priority

3. An application in which the benefits of an earlier application are desired must contain a specific reference to the prior application(s) in the first sentence of the specification or in an application data sheet (37 CFR 1.78(a)(2) and (a)(5)). The specific reference to any prior nonprovisional application must include the relationship (i.e., continuation, divisional, or continuation-in-part) between the applications except when the reference is to a prior application of a CPA assigned the same application number.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

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A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

5. Claims 1, 2, 4-5, and 10 are rejected under 35 U.S.C. 102(e) as being anticipated by Miyamoto.

Claim 1

6. Miyamoto teaches about a host channel for linking the router to the host (client or server) (Fig. 30, Paragraph [0154], lines 24-28); a plurality of processor channels (LAN) each for linking the router to one of the processors (Fig. 30, Paragraph [0154], lines 24-28); routing means comprising means for routing host commands to a selected processor (Fig 3, Paragraph [0007] lines 26-28) and for routing responses from the selected processor to the host (Fig 30, Paragraph [0154], lines 24-28); and selection means in the router for selecting a processor by monitoring the host commands (Paragraph [0007] lines 26-28) identifying a host selection command by detecting a flag in the command, and reading an address for a selected processor in the host selection command (Fig 2, Paragraph [0005], lines 2-9).

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Claim 2

7. Miyamoto teaches about a router, wherein the selection means comprises means for reading an address from an address field in a host selection command (Fig. 2).

Claim 4

8. Miyamoto teaches about a router, wherein the synchronization means comprises means for determining the combined data path width and memory width of the selected processor according to data path and memory field widths in a host command (Fig 1, Paragraph [0004], lines 3-6,9-11,12-14).

Claim 5

9. Miyamoto teaches about a router wherein the synchronization means comprises means for monitoring a next host command following a selection host command to determine a width parameter of the selected processor (Fig 1, Paragraph [0004, lines 3-5, lines 9-11)

Claim 10

10. Miyamoto teaches about a router wherein the host commands are debug host commands, and the router comprises means for routing debug responses to the host (Fig. 2, Paragraph [0085, lines 15-16).

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11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3, 6, 7, 8, and 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto as applied to claim 1 above, and further in view of Willis.

Claim 3

13. Miyamoto teaches about determining the total width of the fields of a host command, specific to width configurations of the processor (Fig 1, Paragraph [0004], lines 9-11). Miyamoto is silent in regards to the router comprising means for synchronizing with a selected processor by monitoring an incoming command stream and an outgoing response. Willis teaches that the router (Fig 1, item 170) comprises means for synchronizing with a selected processor by monitoring an incoming command (Col 10, lines 4-6) stream and an outgoing response (Col 10, lines 13-16). Willis invention relates to providing an economical and reliable message delivery system via a network (Col 4, lines 26-27). It is an objective of Miyamoto to provide a method that increases the efficiency of data transfer (Paragraph [0002], lines 3-5). Adding this feature to Miyamoto's invention would improve the efficiency of communication between devices because a server would be notified if client did not receive intended message. It is for this reason

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that one skill in the art would be motivated at the time of invention to make this modification to Miyamoto's invention.

Claim 6

14. Miyamoto did not teach about a router wherein the routing means comprises a multiplexer comprising means for routing communication between the host and the selected processor and the selection means comprises monitoring logic for monitoring incoming host commands and writing a selected processor address to a register for said multiplexer. Willis did teach about a router wherein the routing means comprises a multiplexer comprising means for routing communication between the host and the selected processor and the selection means comprises monitoring logic for monitoring incoming host commands and writing a selected processor address to a register for said multiplexer (Fig 2). Although, Willis did not explicitly state that writing a selected processor address to a register for said multiplexer was done, it was implicitly implied (Col 10, lines 22-28, Col 11, lines 14-15). Willis invention relates to providing an economical and reliable message delivery system via a network(Col 4, lines 26-27). It is an objective of Miyamoto to provide a method that increases the efficiency of data transfer (Paragraph [0002], lines 3-5). It is well known in the art that adding multiplexers reduces the number of transmission lines needed which results in a more efficient and reliable systems. It is for this reason that one of ordinary skill in the art at the time of invention would be motivated to modify Miyamoto's invention by adding a multiplexer.

Claim 7

15. Miyamoto did not teach about a router, wherein the synchronization means comprises monitoring logic for monitoring incoming host commands and outgoing responses, and for writing synchronization data to a register for said multiplexer. Willis teaches about monitoring logic for monitoring incoming host commands (Col 10, lines 4-6) and outgoing responses (Col 10, lines 13-16), and for writing synchronization data to a register for said multiplexer (Col 19, lines 8-10). One of ordinary skill in the art at the time of invention would be motivated to modify Miyamoto's invention by adding the above features for the same reasons discussed in Claim 6.

Claim 8

16. Miyamoto did not teach about a router wherein said multiplexer is connected to processor channels for data processors, and the router comprises a switch comprising means for acting in response to a control input from the host to route host commands to control processors, bypassing the multiplexer. Willis did teach about a router wherein said multiplexer is connected to processor channels for data processors (Fig 2) , and the router comprises a switch comprising means for acting in response to a control input from the host to route host commands to control processors, bypassing the multiplexer (Fig 15, Col 20, lines 4-6). In Willis's invention, the control input is the type of data that the content source

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wishes to transmit (Col 16, lines 33-38). Willis invention relates to providing an economical and reliable message delivery system via a network (Col 4, lines 26-27). It is an objective of Miyamoto to provide a method that increases the efficiency of data transfer (Paragraph [0002], lines 3-5). Adding this feature to Miyamoto's invention would improve the efficiency of communication between computer systems because it would allow certain types of information to be delivered quicker or if one path became dead (i.e. disconnected from the system) another transmission path would be available. It is for this reason that one of ordinary skill in the art at the time of invention would be motivated to modify Miyamoto's invention to include the above-mentioned features.

Claim 11

17. Miyamoto teaches about a system comprising a plurality of data processors (Fig 1, Fig 3); at least one control processor; a router for routing signals between on external host and said processors, the router comprising: a host channel for linking the router to the host; a plurality of processor channels each for linking the router to one of the data processors; routing means comprises means for routing signals between a selected data processor and the host (Fig 1, Fig 3); selection means comprising means for monitoring incoming host commands on the host channel to identify a host selection command (Fig 1, Fig 3), for reading an address of a selected data processor from an identified host selection command, and for informing the routing means of the selected data processor address (Fig 4A, 4B); synchronization means comprising means

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for monitoring incoming host commands on the host channel and outgoing responses from the data processor (Fig 1, 3 and 30) for determining width of a field of a host command (Paragraph [0004], lines 3-6), and for determining a combined width parameter of the selected data processor according to said field width (Paragraph [0004], lines 9-11) , and for informing the routing means of the width parameter (Paragraph [0007], lines 26-30); means in the routing means for synchronizing signals between the host and the selected data processor according to said width parameter; (Paragraph [0085], lines 3-4, Fig 1).

Miyamoto is silent in regards to teaching about a switch comprising means for bypassing host command signals received on the host channel from the routing means, and for routing them directly to the control processor. Willis teaches about a switch (Fig 15, item 1530) comprising means for bypassing host command signals received on the host channel from the routing means, and for routing them directly to the control processor (Fig 15, Col 19, lines 4-6). The recitation system-on-chip integrated circuit has not been given any patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951). One of ordinary skill in the art at the time of invention would

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be motivated to modify Miyamoto's invention to include the above mentioned features for the same reasons discussed in Claim 8.

Claim 12

18. Miyamoto is silent in regards to teaching about a switch comprises means for bypassing said signals in response to a control input from the host. Willis teaches about a switch(Fig, 15, item 1530) comprises means for bypassing said signals in response to a control input from the host (Fig 15, Col 19, lines 4-6). One of ordinary skill in the art at the time of invention would be motivated to modify Miyamoto's invention to include the above mentioned features for the same reasons discussed in Claim 8.

19. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto as applied to claim 1 above, and further in view of Deneroff.

Claim 9

20. Miyamoto fails to teach about a router wherein the router and the processors reside on a single system-on-chip integrated circuit. Deneroff teaches about a router wherein the router and the processors reside on a single system-on-chip integrated circuit (Fig 1, item 170). It is an objective of Miyamoto to provide a method that increases the efficiency of data transfer (Paragraph [0002], lines 3-5). It is an objective of Deneroff to provide effective and efficient

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communication between various devices (Col 2, lines 40-43, 45-49). Adding the above feature to Miyamoto would improve the efficiency of data transfer because transmission does not have to traverse as many chip boundaries, resulting in less distortion of signals, which leads to more efficient data transmission. It is for this reason that one skill in the art at the time of invention would be motivated to make the above modification to Miyamoto's invention.

Conclusion


21. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cheryl M. Reid whose telephone number is 571 272 3903. The examiner can normally be reached on Mon- Fri (7:30-4:00) .

22. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jack Harvey can be reached on (703) 305-9705. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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23. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

cmr


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